

## ABSTRACT OF THE DISCLOSURE

A method is provided for detecting imminent failure of an electrochemical cell, such as an electrochemical oxygen sensor, including detecting the presence of a gas pocket in/over the electrolyte within the cell either optically, by differences in the path of a light beam through the cell, due to the different refractive indices of air or nitrogen gas and electrolyte solutions or electrically, by loss of electrolyte between a pair of electrodes. An electrochemical cell assembly also is provided having a gas pocket detection assembly. Lastly, a method for retrofitting an electrochemical cell with a gas pocket detection assembly also is provided, along with a kit for retrofitting a cell with a gas pocket detection assembly.